

Notice of Allowability

Application No.

10/005,105

Examiner

Abdulahakim Nobahar

Applicant(s)

KOCHER ET AL.

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/28/2007.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 5/25/07,5/4/07,5/1/07,3/28/07.

DETAILED ACTION

Claims 1-19 have been examined.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 03/28/2007 and 05/25/2007 were filed on the same date or within 2 months after Request for Continued Examination was filed. The submission is in compliance with the provisions of 37 CFR 1.97(b)(3). Accordingly, the IDSs are being considered by the examiner.

The information disclosure statement filed 05/01/2007 and 05/04/2007 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. The IDSs filed on 05/01/2007 and 05/04/2007 list some non-patent literature publications, but the applicants have not provided a legible copy for consideration by the examiner. These non-patent literature publications are indicated in the attached PTO-1449 forms by being struck out.

Allowable Subject Matter

Claims 1-19 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 1 and 11, 2 and 8-10, 3-7, 12-17, and 18 and 19 are drawn to three methods for evaluating the security of a cryptographic device to recover useful information about a key, a system for evaluating the security of cryptographic hardware, and a method for analyzing externally measurable characteristics of a cryptographic device, respectively. The closest prior art, Kocher, "Timing Attacks on Implementations of Diffie-Hellman, RSA, and Other Systems," XP 000626590, dated 08/18/96, discloses similar methods and system. Kocher describes that, during the processing of each cryptographic operation, a plurality of measurements of an attribute related to the operation of a cryptographic device are recorded and statistically combining the recorded measurements (see § 6 Experimental Results, pages 107-109; figures 1 and 2; measurements of modular multiplication times and modular exponentiation times). However, the above Kocher disclosure neither teaches nor suggests that a connected cryptographic device to an analog-to-digital converter configured to measure an attribute related to operation of said device, sending a plurality of command sequences to the device to cause the device to perform a cryptographic operation to process data using a key and determining whether information about the key is leaking from the device. These distinct steps explicitly incorporated into independent claims 1, 2, 3, 12, and 18 render claims 1 and 11, 2 and 8-10, 3-7, 12-17 and 18 and 19, respectively, allowable.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 11, 2007

Abdulhakim Nobahar
Examiner
Art Unit 2132 *A.N.*


KAMBIZ ZAND
SUPERVISORY PATENT EXAMINER